National Weather Service
Service Description Document (SDD)
Experimental Product
February 2008
Experimental NWS web services via wireless technologies

Part 1 - Mission Connection

1. Service Description:

NWS is responsible to make its weather, water and climate information widely available to taxpayers using commonly accepted standards and technologies. One of the most widely accepted, available and cost effective means of accomplishing this objective is the use of web services via the internet, and NWS has implemented a corporate-wide HTTP-based web service. This service has allowed users instant access to current NWS information via industry standard web browsers and internet connections.
A rapidly evolving technology in the United States today is the ability to access internet content via wireless devices such as Personal Digital Assistants (PDA) and cell phones.

This is done using a set of industry standards known collectively as Wireless Access Protocol (WAP) and simple web pages designed specifically for small screen devices. Use of these technologies allows web content to be displayed on the small screens and keyboards usually associated with portable devices. WAP applications usually require reformatting of web content so it can be displayed on the small screen. In the case of textual information, this can be a simple task, but thought must be given to redesign graphical and image information to make it usable on portable devices. Additionally, special consideration must be given to user interaction with the device, since input is done through keypads, stylus or other devices much different than the typical desktop PC. The WAP pages will be encoded in an eXtensible Markup Language (XML) format that allows for dissemination through a variety of wireless devices.

NWS in the interests of providing public services in the most costeffective manner, will provide wireless web services on an experimental basis to customers with wireless access. Information within the wireless web service will include watches, warnings, advisories, weather statements, forecasts and observations. This service will be made available on a “pull” basis only, and will not provide services that “push” content to wireless users on any type of schedule or event basis.

2. Purpose/Intended Use:

Providing NWS information in formats suitable for display on wireless devices allows access of this information to a wide audience in many mobile settings. This experimental service will duplicate content already provided by the NWS, only reformatted for wireless devices.

3. Audience:

This service is intended to meet a wide range of needs for customers with wireless internet capability. Provision of this service permits access to current NWS weather information from any location with wireless internet service, and could include emergency management, transportation, recreational, commerce and general weather information users.

4. Presentation Format:

Selected NWS warning, forecast and observational text products will be reformatted to fit the smaller screens of portable devices, using any WAP-compatible language. The service can be accesses at these addresses:

WAP: http://cell.weather.gov
PDA/HTML: http://mobile.weather.gov

A public overview of these systems is available here:

http://www.srh.noaa.gov/cte.htm

5. Feedback Method:

Comments will be compiled through June 30, 2008 and will be evaluated by the appropriate NWS program managers. Feedback will be obtained through the Webmaster E-mail.
Technical questions may be addressed via e-mail to: Robert.bunge@noaa.gov

Users can also provide feedback with this survey:

http://www.weather.gov/survey/nws-survey.php?code=cell

Part 2 – Technical

1. Format and Science Basis:

Pages will be crafted in an XML language as defined by the industry-wide Wireless Access Protocol (WAP). This will make the page content available for display on any portable device. It can be implemented on a large variety of WAP-compliant servers, received on WAP-compliant devices and transmitted across a wide variety of communications networks, including the internet. By design, WAP does not require the use of any proprietary software, hardware or communication components; rather, these components must be compliant with the WAP standards in order to send and receive content.

2. Availability:

This service will be available 24 hours/day, seven days a week by visiting the website mobile.weather.gov (PDA/HTML) or at http://cell.weather.gov (cell/WAP)